



**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES

## Total Maximum Daily Load Information Sheet

### Middle Fork Grand River Water Body ID: 0468

#### Water Body Segment at a Glance:

<b>Counties:</b>	Worth/Gentry
<b>Nearby City:</b>	Grant City
<b>Length:</b>	25 miles
<b>Pollutant:</b>	<i>E. coli</i> bacteria
<b>Source:</b>	Rural nonpoint source



State Map Showing Location of Watershed

#### Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at [dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm](http://dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm)

#### Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Middle Fork Grand River is impaired due to exceedances of water quality criteria that protect recreational uses.

#### Designated uses of Middle Fork Grand River\*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category A (WBC-A)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

\*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

#### Use that is impaired

- Whole Body Contact Recreation Category A (WBC-A)

### **Criteria that apply**

- Missouri's Water Quality Standards at 10 CSR 20-7.031(5)(C) and Table A state that the *E. coli* bacteria count shall not exceed 126 counts per 100 milliliters of water (126 col/100 mL) for Category A waters. This count is the geometric mean during the recreational season (April 1-October 31).

### **Assessment and water quality data**

High counts of *E. coli* bacteria in surface waters are an indication of fecal contamination and an increase risk of waterborne disease from pathogenic bacteria or viruses. The department judges a stream to be impaired if the criterion is exceeded in any of the last three years for which there is a minimum of five samples collected during the recreational season. For Middle Fork Grand River, data was collected from 2002 through 2012, but the only year with at least five samples was 2007. The geometric mean during the recreational season of 2007 was 438 counts/100mL.

### **TMDL for Middle Fork Grand River**

The Middle Fork Grand River TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Middle Fork Grand River TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

### **For more information call or write:**

Department of Natural Resources

Water Protection Program – Watershed Protection Section

P.O. Box 176

Jefferson City, MO 65102-0176

Ph: 1-800-361-4827 or 573-751-1300

Fax: 573-526-6802

Email: [TMDL@dnr.mo.gov](mailto:TMDL@dnr.mo.gov)

Program Home Page: [dnr.mo.gov/env/wpp/index.html](http://dnr.mo.gov/env/wpp/index.html)

## Map of the Middle Fork Grand River watershed

